

MEMORY SYSTEM WITH REDUCED REFRESH CURRENT

Abstract

The present invention is a random access memory device with reduced
5 refresh current and method for use in the same. The memory device includes a
memory array with a plurality of memory cells. The memory cells are
configured to hold a charge. A command block is coupled to the memory bank
and is configured to receive refresh commands that are used to periodically
refresh the memory cells. A detection circuit is coupled to the command block
10 and to the memory array. The detection circuit is configured to store a hit detect
signal when the memory array is accessed. The detection circuit also receives
the refresh command. The detections circuit enables block select signals only
when the hit detect signal is stored while the refresh command is received.